

# THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. F. ROBERTS AND SAMUEL SANDS—EDITED BY E. T. ROBERTS.

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BALTIMORE: TUESDAY, MAY 22, 1888.

## GEOLOGICAL SURVEY OF MARYLAND.

We commence the publication of this highly interesting document in to-day's paper, and ask for it the perusal of all. Though local to Maryland, the facts and principles which Professor Ducatel states, and lays down, are universal in their application, and, therefore, of general concern. The agricultural suggestions which he makes, are judicious, and we are gratified to find him taking so decided an interest, as he does, in urging our farmers on to the improvement of their lands, by the use of lime and deep ploughing.—Two more powerful agents in the melioration of the soil, we are very sure, are not to be found in the whole range of the agricultural art, and we have often witnessed with unmingled regret the indifference with which both were treated by the farming community.

**Pumpkins.**—No one who have ever raised them will have omitted putting in pumpkins with his corn. To the uninitiated, we say, take our advice and plant a goodly number of pumpkin seed through your corn field. They will not subtract from the yield of your corn, but add greatly to your feeding resources.

Those who have not yet got in their *Mangel Wurtzel*, or *Sugar Beet* seeds, should not delay another day. Let them turn to in good earnest, prepare their ground, and drill in the seed.

## WATER MELONS.

This delicious fruit, every farmer should, and may raise if he please. If planted twelve feet apart, at intervals of every third row through a part of the corn field, they will thrive well, and afford one of the most grateful desserts for the family that the human palate can desire. We doubt

whether the quantity of corn will be diminished at all; but on the contrary, believe that, should the summer prove a dry one, that the shade afforded by the vines will prove highly salutary in keeping up a moisture in the earth.

## POUDRETTE.

The enterprising editor of the N. York Farmer, in conjunction with a French chemist, has commenced the manufacture of this manure, and calculates so to extend his operations as to be able to furnish a large supply. From the immense quantity of the staple ingredient in its composition always to be had in the city of New York, we anticipate that his manufacture will prove extensively beneficial to the agricultural interests of our country.

If editors possessed the power of extracting aliment from the air like the chameleon, they would be animals most happily adapted to the necessities of the present times!!!

## CULTIVATION OF VEGETABLES.

**Artichoke—(globe)**—This vegetable is but little cultivated in this country, although highly esteemed in some parts of Europe. It is a large perennial plant, which is propagated by suckers, or by seed. The seed should be sown in May, and in June the plants may be transplanted like winter cabbages. Set the plants 3 or 4 feet apart, on good rich soil, and the following winter protect them by hilling the earth over their crowns.

The part used, is the large globular flower head, which should be cut before the appearance of the flower. When cut they should be soaked and washed in cold water, then boiled from 2 to 3 hours, and served up like asparagus.

The plant called Jerusalem Artichoke, (*Helianthus tuberosa*), is not properly an artichoke, but a tuberous rooted Sunflower. It has a root similar to a potato, which contains but very little nutriment, and is of but little value. It is of the easiest possible cultivation, and when it has once got possession of the ground, it is very difficult to eradicate.

**Beans**—The varieties of Beans, like some other vegetables, are very numerous, and yet all of them are recommended as possessing some peculiar qualities, which, in the minds of different individuals, entitles them to preference.

The varieties of *Kidney Dwarfs* may be planted any time from about the first of May, till the middle of July.

*Pole or running Beans* should not be planted

before the ground gets warm and vegetation brisk, as they are very apt to rot, if planted when the ground is wet and cold.

The *Lima* is considered the richest of all beans, but it is a southern production, and requires a long warm season to bring it to perfection, consequently it is an uncertain crop in some sections, and of late but little cultivated.

The *English Bean*, (*Vicia faba*) is a very different vegetable from the other kinds, and but little known or cultivated in this country. It is an annual plant, growing from 2 to 8 feet high, with a single upright stalk, having pinnate leaves, purple flowers, and large flat pods growing on the sides. English Beans do not bear well during the heat of summer in this country, consequently they should be planted as early as possible, in order to have them bearing before the extreme heat of summer commences. They may be planted in rows like kidney dwarfs, or the larger kinds in hills like Indian corn.

[From London's Magazine.]

## Remarks on the Propagation of the Dahlia.

By GEORGE A. LAKE, F.L.S. Tulse Hill House.

Every cultivator of the dahlia is aware of the facility with which it is propagated by cultivating of the young shoots, plunged in a little bottom heat. Indeed, from a single root, under proper treatment, several dozens of young plants may be raised in a short space of time. Consequently, this method is universally adopted by nurserymen; they annually requiring a large stock of young plants for sale; and by individuals anxious to propagate extensively a new variety. But it ought not to be practised by amateurs or others, anxious to obtain fine perfect flowers for exhibition or otherwise. I speak advisedly, and from experience, when I assert, that plants raised from cultivating do not produce equally perfect flowers, in regard to size, form, and fulness, with those produced by plants grown from divisions of the tubers, the old method of propagating the dahlia. It has been said that plants raised from cuttings flower more abundantly than those raised by division; but to this I am not prepared to subscribe.

Physiological botany readily accounts for the different results of the two methods. The starch, or feculent matter, stored in the roots, is intended by nature for the nutrition of the annual shoots; not only, until the tubers have formed, at the commencement of the vegetating season, the spongioles necessary for the absorption of the required quantity of pabula; but also when that the spongioles are unable, from draught, or other causes, to absorb a sufficiency of nutrient matter, to sustain the rapidly developing and vigorous vegetation.

Plants propagated by cuttings cannot, of course, absorb the nutriment prepared and stored, during the last season, in the tubers of the mother root; and are forced to form spongioles and tubers for themselves. But the fecula contained in these

latter is not, till towards the end of the year, sufficient in quantity, or sufficiently ripened by the deposition of carbon; to be, perhaps in any way serviceable.

The potato might be propagated by cuttings of the young shoots, in the same way with the dahlia; but such plants would not, in the early stages of their growth, be nourished by the starch of the tubers; and, therefore, would neither be so strong and vigorous as plants raised in the usual method, nor would they yield a return equal in weight or quantity.

It is well known that tubers and bulbs, when placed in damp situations (the potato, for instance, in a damp cellar), develop their leaf-buds; and that these continue to grow and elongate, without the assistance of rootlets or spongioles, so long as there is any fecula in the tuber or bulb; but that when this is exhausted the stem withers and dies. We hence perceive how important the nourishment derived from this substance is to the vigor of the plant. Hence, too, we may learn why perfectly ripe sets are so much more certain of success than unripe ones; the fecula in the former being so much the more abundant, and more perfectly elaborated. To the unripeness of the sets is attributable the failure of the potato crops in some parts of Scotland, in the autumns of 1835 and 1836, and the consequent misery and starvation of the unfortunate peasantry.

I feel no doubt that much of the disappointment and dissatisfaction experienced by buyers of new varieties of the dahlia, arising from these, so rarely answering the expectations formed of them, is the result of the system of propagating from cuttings. A good seedling is raised: the grower is naturally anxious to make the most he possibly can of it; he therefore plunges the root in heat, and strikes every cutting he can force it to throw out. The young plants are consequently weak and unhealthy, rarely throw out a good flower during the whole season, and are, probably, discarded as undeserving of further notice. My first plant of Brewer's Rival King, was a cutting from a root, which had been much worked, and, consequently, did not show a good flower during the season. The next year, I grew it from tubers, and also from cuttings: the latter always produced imperfect flowers, but the former beautifully perfect ones. With many other varieties, I have found the same difference between plants raised from cuttings and those from tubers.

I would therefore recommend, in order to secure a good and satisfactory bloom, that the roots be laid, in March, in a damp warm place, such as a forcing house, gentle hot-bed, or even a cellar; and that, when the buds show themselves, each root be divided into as many pieces as may be required, retaining a bud to each piece; and that they be then planted separately, in 48-sized pots. The after-treatment is the same as for plants raised from cuttings.

Brixton, Feb. 8, 1838.

[From the same.]

#### ON THE CULTURE OF THE MIGNONETTE.

BY JAMES CUTHILL.

Mignonette is considered a very simple plant to grow, and so it is in fashion. We generally see it during winter; but a celebrated grower of for-

ced flowers for Covent Garden told me that he never had but one really good crop of mignonette, and by it he made a good sum of money.—After four winters' sowing, without the least failure, I consider my system established; and by it I have had, without the least variation, forced mignonette in flower by Christmas, and as strong as border mignonette. On the 20th of August, I sowed 100 pots of 32's, filled with the following compost: half sandy loam, the other half made up with leaf mould, and road sand, not sifted over them. The pots are then put into a pit or frame, and set very near the glass. The lights are kept off at all times, except during rainy weather, when they are always put on; as, above all things, a drop of rain is never allowed to fall upon the pots, for several reasons. The first of these is, because rain is often very heavy, and washes the seed out of the pots; secondly, the rain is often too little, and only moistens the surface; and, thirdly, after the 1st of October, rain is too cold, and chills the plants. I water the plants with a very fine rose, and always twice over, but never until they are upon the point of flagging; and, after the first of October, I either warm the water, or use it out of the stove. I remove the mignonette to the front of the green-house, about the 1st of November, for fear of damps. If a succession is wanted, I cut down as many as may be necessary, about the middle of December; and these will make a better blooming and thicker pot of mignonette, than a second sowing, and will save trouble. In thinning, I leave only six or seven plants in each pot; five of them about 1 inch from the rim, and one or two in the centre. In order to show gardeners how wrong it is to let rain fall upon their frame plants during winter, I had two pots of mignonette put on the bare flue of an empty pit in November, giving them no water and no covering; and, upon the 1st of February, brought them into the green-house; and now (February 5,) they are looking well. This speaks volumes: if mignonette will stand 30° of frost, merely because it is kept dry, what will cauliflowers, lettuce, radishes, &c., not stand?—The above may appear a simple story to many; but I am obliged to be more particular with winter mignonette in pots, than with the finest stove plant.

Dyrham Park Gardens, Feb. 6.

[From the same.]

#### ON THE SWARMING OF BEES.

By JOHN WIGHTON, Gardener to Lord Stafford, Cossey Hall Gardens, Norfolk.

Much has been said and written, of late years, on the means of preventing the swarming of bees; but all the various plans suggested have, I believe, proved ineffectual. I have had the care of bees, on what is termed the "humane system," for eight years; but all my experiments to prevent their swarming have failed. Want of room, and great heat in the hive, are held by some to be the causes of swarming. Mr. Nutt of Lincolnshire attempted to obviate these causes, by boxes of a peculiar construction, provided with tubes of tin, made movable for the purpose of ventilation.—Mine are boxes of his making: but I never could prevent the bees from swarming, by allowing them plenty of room. Ventilation is not easily

accomplished; for the bees are sure to seal up the smallest aperture.

Heat and want of room may induce swarming, if there be more than one mother-bee in the hive; but not otherwise. In the former case, the mother-bees will always fight, till one is compelled to quit the hive. The mother, or queen bee, who retires will always be followed by a number of others; and this constitutes a swarm. It is, in fact, a provision of nature for the multiplication of the species. Hence, there is no other way to prevent swarming, but the destruction of the rival queen. This cannot be done without much trouble, and considerable injury to the bees, however easy it may appear to some, who, probably, have never tried the experiment. The worst part is, that the process must be repeated; for, in the breeding season, there are mother-bees in different stages of existence, and some in the larva state, which cannot be detected.

Another suggestion has been made, to destroy the queen-bee out of a swarm, and then replace the bees in the hive. But here the same inconvenience recurs; for, if there should remain another superfluous queen in the hive, they would speedily swarm again, as I have found by experience. Unpleasant as it is to have a hive weakened by swarming, there is, I fear, no possibility of preventing it, while there remains more than one mother-bee in the hive. However wide a space might be assigned to them, the mother-bees will always attack one another. If two are imprisoned together, they will fight. Apiarians have said many fine things about the queen-bee and her royal government; but the simple truth is, that she is the parent, or mother, of the young progeny. Of this I had myself some doubt, till I observed the mother-bee laying an egg in several of the cells in the month of June last. This, therefore, being a provision of nature to continue the species, there can be no successful scheme to prevent swarming, and to attempt it is mere folly.

Cossey Hall Gardens, Jan. 20, 1838.

#### THE SUGAR MAPLE.

You are aware, I presume, that immense quantities of sugar are annually made from the juice of the Acer saccharinum, in the west of Pennsylvania and New York, with which our forests abound (Professor Kid, in his *Bridgewater Treatise*, says they are "cultivated"!); and, as the peculiarities attending the flow of this juice, have puzzled me to explain them, I have resolved to state them to you. 1st, It is as completely locked up by continued warmth as by frost, and only flows by the alternate operation of these agents; yet the same degrees of heat, even after frost, have not always the same effect. Thus, a warm south wind stops the flowing more than a cool northwest wind. A bracing wind promotes the discharge, and a relaxing wind checks it. 2dly, the juice flows for twenty-four hours after a frost, but when a tapped tree has ceased, tap a new tree, and it will flow considerably, as if a certain quantity was discharged by the frost. The juice flows from all sides of the incision. 3dly, tap a tree early in the morning, after a cold night, and no juice will flow; tap it a few hours after, if the day be moderately warm, and the juice will issue in streams. February, and early in March, are the months in which the sugar is made. The



people encamp in the woods, and remain there until the trees cease to flow, or they have procured as much as they require. Now, I wish to know, if the saccharine juice be sap, how it happens that a moderately cold night is essential to an abundant flow next day? The farmers told me, "We can do nothing in sugar-making without cold nights." I thought that the sap never flowed until an increase of temperature took place.—State the facts in your Magazine, if you please; but give me the explanation by letter, or add it to the article.—*M. Philadelphia, March 16, 1837.*

The circumstance attending the flow of sap from the sugar maple of the United States, so accurately detailed by your correspondent at Philadelphia, show, not only what is known from the experience of the manufacturers concerning the flow of the juice, but also under what circumstance the flow is more or less copious.

The movements of the sap of the maple are exactly similar to those of all other trees at the same season, or that are exposed to the same vicissitudes of weather. Why do not trees yield a flow of sap from a wound in summer? Because every drop absorbed by the roots in that growing season is required to supply the demands of the transpiring bark, leaves, and lengthening shoots, with their flowers or fruit; so that there is no excess to run out of a wound. And why does the sap not flow in winter? Because, in that cold season, it is inspissated; and the pores of the bark are then all naturally sealed. On the return of spring, however, the sap becomes fluid; and as soon as the buds begin to swell, an ascending current commences, and continues during warm weather, and is expended not only in enlarging the buds, but escapes imperceptibly and copiously through the porous bark. During this process, should a frosty night or "bracing wind" happen, the pores of the bark are shut up, and the sap accumulates within the vascular membranes; and if, when so collected and pent up, the tree be tapped, an abundant stream will issue out, and continue to run until the surcharge is exhausted, or until a warm state of the air causes a general evaporation of the juices from every other part of the tree, or lastly, until the flow becomes arrested by frost.

Thus, the quantity of sap is alternately scanty and copious, according to the temperature of the air, or as the tree has been more or less previously drained during the spring months; that is, during the period which elapses between the bursting of the buds and the development of the foliage.

That sap keeps ascending to, and accumulating on, the recently formed layers of liber and alburnum, when the juices in the bark are congealed by frost, may be inferred from what often takes place in America, and other northern countries, in very hard and long continued frost; namely, the largest and hardest timber trees are rent asunder by the expansive force of the warmer sap, and elastic gases enclosed therewith.—*J. M. London, April, 1837.*

From the Franklin Farmer.

#### WATER MELONS.

Mr. Editor—As the season for planting water-melons is fast approaching, I think you ought to

give your readers something on that subject. Failures in raising this delicious fruit are very common, much more so in my opinion, than need be; if I may judge from my own experience, and I have a good deal on this particular branch of horticulture, any one may easily raise a sufficiency for their own consumption. I have no recollection of ever having failed but once, and that from sheer neglect, having over-cropped myself with more important articles. The method which I pursue you shall have, and if any of your readers know of a better I hope they will communicate it, and they shall have the thanks of one at least.

I first select a piece of rich friable loam, that has been in grass if possible; I plough it very deeply and pulverize it as thoroughly as if for hemp; I then lay it off into rows six feet apart, upon which I make the hills also six feet asunder; wherever the hill is to be, a deep hole, not less than 12 inches, is dug and filled with well rotted manure, the earth is then drawn over it and a flat hill is made about 4 inches high; when you are ready to plant, soak the seed for 8 or 10 hours in water, and then having loosened well with a rake the top of the hill, draw a drill about an inch deep directly across the hill in the direction that the rows were laid off, and deposit the seed two inches apart, to the number of ten or twelve, then cover them with the hand, taking care to remove any clods that may be on them; when you think they have had nearly time to come up, re-plant in a parallel line across the hill. The object of putting so many seed is to prevent total destruction by the little striped bug; they are fond of the young plants than older ones, and if they can be prevented from destroying the first before the re-planted comes up, they will desert the older ones. I have tried every remedy which I have seen presented for these pests, but affirm that not one will succeed. My plan is to go with several small boys every morning before the dew is off and kill every bug that can be found, but some will escape the utmost vigilance; hence the necessity of having a plenty of plants and a young set coming directly after the first. So soon as the plants put out the third leaf, I commence working them by scraping the earth away from the vines with a sharp hoe, and loosening the crust over the whole hill, and as soon as the plants are large enough, I run a plough with the bar to them, as close as possible, and then plough out the ground between the rows; the hoes then follow, and scrape away most carefully any earth which may have been thrown to the vines, and not one particle is ever permitted to be drawn about the vines during their whole cultivation; hilling them up is certain destruction if the season should happen to be wet, and will do no good if dry. Here I conceive lies the secret of their cultivation, and if they are afterwards kept clean with the cultivator and hoe, you may confidently expect a good return. So soon as the vines begin to run, draw out all except three of the healthiest, which should be six or eight inches apart. After the vines have covered the ground so that they cannot be readily worked, they should be kept free from weeds with the hand—pursley is particularly troublesome, and cannot be destroyed but by drawing it up by the roots and throwing it in heaps, where the sun will quickly cause it to wither. L.

#### ONIONS.

On reading an article in the Cabinet of March 15th, 1837, upon the culture of onions in Wethersfield, I concluded to try the experiment of raising them on Delaware soil.

I dressed an eighth of an acre with four cart loads of well rotted stable manure, being a part of a parsnip lot planted last year for spring feeding of milch cows. After the manure was very evenly spread over the ground, it was ploughed in ridges, and planted with nine ounces of seed.

I did not pursue the Wethersfield plan of sowing the seed in rows, but put them in hills, supposing it would take less seed, less work, and produce equally as good a crop. The instrument to plant them was made in the following manner: A lath about four feet long, with four holes bored through it with an inch augur ten inches apart, which were filled with pegs which projected through the lath about one and a quarter inches; then a handle of three feet long was put in the centre of the lath to carry it by; this instrument was then laid across the bed, which, by stepping on it with one foot on each side of the handle, four holes were made ten inches asunder; then moving it about a foot, and repeating the operation, the bed was soon filled with holes ten inches one way, and about a foot the other. A few seeds were then dropped in each hole, the beds raked and rolled, which finished the operation of planting.

As soon as the plants began to appear, the beds were raked between the hills with a small rake, made of tenpenny nails, which retarded the growth of the weeds, and caused the young onions to advance in size and strength before the time of weeding and dressing them with a hoe had arrived. I regard this little operation of early raking the beds as quite an improvement; for part of the ground was not managed in this way, and the process of weeding was much more difficult; besides, in extracting the weeds, many of the young onions would fall down, and some of them were pulled up in consequence of the weeds having acquired a growth equal to the onions.

They were dressed several times through the season by pulling the weeds and using the rake and the hoe. The work being done at intervals, and mostly by children, no very accurate account was kept of the labor, but it did not exceed ten days' work for a full hand. They grew very large, many of them measuring thirteen and a half inches in circumference, and many of the hills had three or four clustered together; they are excellent for the table, fine flavored, with none of that rank, strong taste, so common to onions raised from sets. One of the beds was measured, by which the average produce was over 50 bushels on the whole ground; which would exceed four hundred bushels to the acre.

Although the produce equalled Wethersfield in amount, I was somewhat disappointed on finding several bushels of them not of a merchantable kind; they had thick necks, sort of evergreens; they would neither die or dry, commonly called scallions by gardeners.

I see it stated, I think in the American Gardener, that no crop is more difficult to accommodate with suitable soil, than the onion, in consequence of its disposition to behave in the manner I have

stated. The ground this experiment was tried upon, is rather a stiff clay, but very much softened with lime and manure, yet I presume it is not exactly the soil they like. I intend next season to select a more sandy location, for I am rather pleased with the partial success of the operation.

The onion does not seem to want as much manure as other root crops, particularly the potato and ruta baga turnip; they require, it is true, considerable more labor, but the value of the crop would, upon an average, be double, and more, if the difficulty I have mentioned could be surmounted.

I suppose that two and a half or three acres of onions could be raised by hiring one additional hand through the summer season; besides, it is sometimes profitable to increase the varieties of labor on a farm, when workmen are employed to perform it. In mowing time and harvest, we frequently have spells of wet, damp weather, and a field of roots not only gives employment to all hands during such intervals, but pays the expense of an additional hand through the summer, by which the severe operation of gathering hay and grain is very much reduced.—*Farmer's Cabinet.*

*From the Boston Courier.*

#### PLOUGHING AND PLOUGHS.

**Mr. Editor**—If you consider the following remarks, made agreeably to promise, are worthy of a place under your useful head of Geoponics, they are at your disposal.

Ploughing is considered by all farmers as the most important agricultural operation, either as it regards the immediate crop, or the future and permanent improvement of the soil. The farmer, who so manages his fields, as to produce, in the main, the greatest reward for the labor and expense bestowed, will undoubtedly be considered as acting with a sounder discretion, than he whose sole object is a present crop, without regarding the permanent improvement of his fields. To deepen the soil, by bringing to the surface at each successive ploughing, a portion of the poorer sub-soil, and thereby exposing it to the enriching influence of the atmosphere, and to cover up and preserve from washing rains, and wasting winds, the light vegetable matter upon the surface, as well as to facilitate the subsequent operations of the husbandman, are the only important uses of the plough.

Our old fields are rapidly approaching to a state of utter sterility. At each successive rotation of crops the vegetable mould is becoming thinner, and the product less; and the plough, in the hands of most farmers, so far from deepening the soil, and increasing its powers of producing, is really exhausting it of all its natural fertility, and will soon render it, as has already been done in some parts of our country by the same means, an unproductive waste, unfit for cultivation. The rich treasure, which our forefathers found upon the surface, which had been accumulating for centuries, has been squandered with a prodigal hand. The apparently inexhaustible deposit of vegetable food, which covered the land, has, by an improvident use of the plough, been given to the four winds of Heaven, or washed away into the ocean. They have ploughed, cross-ploughed, and harrowed, till their descendants have little else left than a mere *caput mortuum*.

I have known rich swells of land in Maine, which, thirty years ago, were covered with thick forests, and what would have seemed an exhaustless store of food for vegetation, by means of the plough, robbed of every particle of vegetable sustenance, and now absolutely abandoned by the occupant as worthless.

Strange as the assertion may seem, it is nevertheless true, that farmers generally plough too much. The poorer sub-soil, which is turned up by the first ploughing, instead of being kept upon the surface, till it has become enriched by culture and exposure to the air, is by cross ploughing immediately turned back again into its cold and lifeless bed; and the light vegetable mould instead of being kept beneath, for the benefit of the crop, is, by the same process of cross-ploughing, brought again to the surface, and blown away by winds, or washed away by rains.

The manner of ploughing, and kind of plough, which is used by most farmers, have also a tendency to diminish the natural or acquired fertility of the soil. With ploughs but little differing in construction from common wedges, the ground is not turned over, but crowded into ridges, or the furrows lapped upon each other in such a manner as to expose much of its properties to waste. The writer has ascertained from actual experiment, that an acre of land yielding not more than a ton of hay to the acre, at the usual season of ploughing greensward, say the tenth of May, contains more than twelve tons of vegetable matter, consisting of the roots and tops of grass, and other vegetable remains upon the surface. Such a method of ploughing then as will be best calculated to secure for the benefit of the crop, this mass of enriching substance, the farmer should not hesitate to adopt. By completely inverting the sward, and laying it as flat and smooth as the nature of the ground will admit, and then cultivating the crops without disturbing the sod, with the application of a light dressing of compost, land may not only be kept in heart, but wonderfully improved. With one ploughing in this way, and spreading on one top dressing of compost manure, of about twenty cart loads to the acre, and mixing it finely with the poor earth at the surface, I have raised two crops of grain or roots, and laid the land to grass. In the ordinary way of cultivating, four ploughings, as many times harrowing, and two dressings of manure, are considered necessary. I have then saved three ploughings, and as many harrowings, one dressing of manure, and at the same time have deepened, and permanently improved the soil, and more than doubled my crops. Ten years ago, I was upon the point of abandoning some of my old fields in despair. They had been cultivated in the usual mode of ploughing, cross-ploughing and cropping, alternately under the plough, and in grass, and had become so impoverished, that the products were insufficient to cover the expense of cultivation. The same piece of land, which gave me one ton of hay, will now, at the same distance of time, after laying to grass, give me three.

In the cultivation of land, which has been a year or more under the plough, nearly the same course is to be pursued, especially when it is intended to sow wheat or rye, plough your land so as to turn under the rich mould, bring to the surface a portion of the fresh earth that has never

before been disturbed by the plough, and mix this well, (if the preceding crops have not been well manured) with a light dressing of well rotted compost, and from twenty to fifty bushels of slaked lime to the acre, and I am confident you will never require a legislative bounty, as an inducement to cultivate wheat.

Good ploughing cannot be effected without ploughs suitably adapted to the purpose. In this all-important agricultural implement, I venture the assertion, without fear of contradiction, that the Americans have made greater, and more useful improvements in its adaptation and fitness for the designed purpose, within the last twenty years, than have been made in Great Britain for a century. From a conviction of the indispensable necessity of good ploughing to a successful tillage, near twenty years ago I persuaded the person who occupied the farm I now own, to send to England for an improved Scotch plough, (I think Small's) which was highly recommended in the agricultural publications of that time. This was before the introduction of the cast iron plough into this part of the country. The plough came, and I must confess I was greatly astonished at the first sight of it, and as much disappointed when I witnessed its operations. A large, misshapen combination of wood and iron, it was the laughing-stock of my neighbors, who at once denounced me as a "book farmer." This plough was laid aside, and has been kept for show, and in construction and workmanship, when compared with American ploughs, furnishes a striking illustration of the superior skill and ingenuity of our own mechanics over those of Europe. I can now do twice as much work, and do it infinitely better, with Prouty & Mears' improved plough, with one horse, and a single hand, than a yoke of oxen and a horse, and one additional hand to drive, could do with the famous Scotch plough.

Public attention was first awakened to the subject of improvements upon the old fashioned wedge-like plough, by the writings of Mr. Jefferson, who, in 1793, published his new theory of the construction of the mould-board, formed upon mathematical and philosophical principles. It was in consequence of a suggestion from him, that Robert Smith, of Pennsylvania, in 1803, substituted the cast iron for the wooden mould board, for which he obtained a patent. This was the commencement of a series of improvements, which have resulted in the substitution of cast iron for all parts of the plough, except the beam and handles, and such has been the progress in reducing this implement to a fitness for the purposes designed, that the American cast-iron plough as now constructed, may in truth be considered, as it has been denominated, the most important instrument known to man. About fifteen years since the cast iron share came into general use in this part of the country, Wood's, Tyce's, Hitchcock's, Howard's, and last of all, Prouty and Mears's, have each had their share of public favor. I have particularly attended to the operation of all these, and noticed the defects and excellencies of each. About twelve years ago, Hitchcock's plough, then in general use, and highly approved by the farmers of New York, was introduced into this State by Mr. Prouty, who was well acquainted with the practical use, as well as the construction, of the plough. His science in



agriculture, aided by his mechanical skill, from time to time, suggested to him various and important alterations and improvements in this plough—and about two years since, Prouty & Mears obtained from the government a patent for their "improved cast iron plough."

The prevailing difficulty with all ploughs, with the exception of the last named, is, that the force necessary in the draught, is not applied directly to the centre of resistance. Writers on this subject, as well as practical farmers, have erred in their notion, that the beam should be placed directly over the land side of the plough, and that the cut of the coulter, or the position of the standard, should be square, or at a right angle with the cut of the share, thinking that if the share and coulter make an acute angle on the land side, the plough will incline to fall to the right. This would be the tendency, unless the other parts of the plough are so constructed as to resist and overcome this inclination. By so placing the coulter as to form an acute angle with the plane of the share, on the land side, the beam is brought more directly over the centre of the plough, as is the case with Prouty & Mears's improved plough, and thereby the power necessary to move it, is applied more directly to the centre of resistance, and the force required to remove it, and overcome this resistance, is of course less than when applied on one side. I cannot better make myself understood, than by supposing the land, or left-hand side of a harrow, to be kept on a straight line with the line of draught. It will readily be perceived, that the force necessary to draw it, when so placed, will be greater than if drawn in the usual way, by applying the draught to the centre. This is decidedly one of the most valuable improvements in the construction of the plough that has been made in modern times, and for which the public are indebted to the ingenuity and skill of Messrs. Prouty & Mears. A greater ease of draught is not the only advantage resulting from this improvement. Another and perhaps greater benefit is its perfect adaptation to the end designed, by leaving the ground in the best possible condition. The acute angle, which is made in the land side of the furrow slice, by the peculiar construction of this plough, enables the ploughman to lay the furrows together, like the feather-edged boards. This, in greensward, is very desirable, as the grass is thereby prevented from springing up between the furrow slices much more effectually, than when the furrows are cut at right angles. The grass is completely shut in, and will not rise to injure the crop, or increase the labor of cultivation. Not only in greensward, but in old ground, the superior manner in which the work is done by this plough is very perceptible. There is no tendency to crowd the ground into ridges; the soil is taken up, as it were, and turned over, and left loose, and in the best state to derive vegetable aliment from the air, and to enable the roots of plants to penetrate, and strike down in search of food.

Another advantage attending the peculiar construction of Messrs. Prouty & Mears' plough, is its durability. When the resistance is all upon the side of the beam, there must be a constant tendency of the plough to the left, or land side; the friction is thereby increased in this part, and the wear, of course, is greater: but when the beam is

placed more over the centre of the plough, and the resistance which it has to encounter, is upon both sides of the beam, its movement is more regular, and the friction equal in all parts. These are some of the peculiar properties of this plough, which give it a decided preference to any other now in use. On conferring with some of my neighbors, relative to the work of Prouty and Mears's plough, it is believed, that in ploughing a field of ten acres, the amount of labor saved, added to the amount gained in consequence of the improved tilth, when compared with the work of any other plough, is fully equal to the price paid for it.

Lexington, March, 1838.

## GEOLOGICAL SURVEY OF MARYLAND.

By PROFESSOR DUCATEL.

To his Excellency, THOMAS W. VEAZEY,

Governor of Maryland.

SIR:—I have the honor to submit to you the result of the discoveries and observations that have been made; during the past year, in furtherance of the geological survey of the state; and in accordance with the plan hitherto pursued, shall not confine myself to an exposition of the progress of the survey, but will embrace within it such disquisitions as may naturally suggest themselves concerning the economical use of the materials that have been found, adding accounts of the most approved modes (in my judgment) of extracting and employing them, as well as furnishing descriptions of their mineralogical characters and geological relations.

It has also been the custom, heretofore, to preface the account of the mineral resources of each county, by one relating to its physical geography and to its agricultural condition. As the introduction of these subjects in the preceding reports, seems to have met with the approbation of the intelligent farmers of the State, and as it is calculated to remove some unfounded prejudices, regarding certain inherent disabilities supposed to exist in portions of the country to profitable cultivation, it will be continued; the more so that it tends to inspire our fellow-citizens with confidence in the susceptibility of their soils to receive a permanent improvement, and enlightens strangers on the subject of the actual resources of the State, which, upon comparison, will be found not to yield, in this respect, to any section of the Union.

With these preliminary remarks, I have the honor of submitting to your excellency the following

### REPORT.

#### SEC. I. Geological Examination of Kent Co.

The next in the order of surveys that remained to be accomplished on the E. S. of Maryland was that of Kent county, the result of which will be given, for the present, in reference to its physical geography, the character of its soil, and its mineral resources.

This county is embraced within an area of about 332 square miles comprising upwards of 323 thousand acres; and although one of the smallest, was at one time considered among the most productive in the State. It lies between two rivers—the Chester and the Sassafras—that are navigable

for schooners, nearly their whole length, or almost to the boundary line separating the county from the State of Delaware, on the east; whilst its western limits are formed by the Chesapeake Bay. It is moreover intersected by numerous creeks, affording additional facilities for the transportation of its produce by a short and safe navigation to Baltimore, or by means of the Chesapeake and Delaware canal, to Philadelphia. The upper and middle portions of the county form an extensive nearly level plain, with a gradual descent to the S. W. towards the heads of the creeks that empty into the Chesapeake Bay, and about the mouth of Chester river; after which the country falls more abruptly, extending itself into necks of land that are lower, more uniformly level, and nearly encompassed by these creeks.

The tract of land usually denominated the Head of Chester, extending between this river and the Sassafras, and embracing the region about Black's cross roads, has always appeared even to the most superficial observer a most beautiful farming country. Its surface is gently undulating, and the soil which is loamy, with a substratum of clay, requiring no artificial modes of drainage, is easily cultivated, and as easily improved. In its present condition it is best fitted for the production of corn, rye, and oats, but by the use of lime, or of some of the mineral deposits which it embraces, and that will be presently described, might be made to yield full crops of wheat. It has been much despoiled of its timber, though there are still remaining bodies of very valuable woodland, consisting principally of oaks and hickory. This portion of the county is, moreover, represented to be very healthy. On the river sides of the tract of land now under consideration, the soil is more variable: thus, in travelling the road from Millington to Chestertown, for the first four miles the country is gently rolling, with a naturally good soil, being a clay-loam, sour, and in an unimproved condition. Between New Market and Chestertown the county is more hilly, soil clay-loam, very sour. On the side of the hills the soil is gravelly and ferruginous, the mixed green sand making its appearance in the ravines of the water-courses, overlaid by a highly ferruginous sand. From Georgetown cross roads to the Head of Sassafras, the country presents a succession of moderately undulating plains between the creeks, the soils of which alternate between a sandy loam and clay-loam, passing into stiff clay. At George Town the high river banks are composed of a ferruginous sand, in some places indurated, overlaying a mixed green sand, without fossils; but on ascending the river, the green sand is free from foreign admixture, and at the Head of Sassafras becomes quite pure and filled with marine shells, the principal kinds of which are the *terrestrata Harlani* and *gryphaa vomer*. The banks of the river are generally moderately high, and covered by chestnut, oaks, maple, locust, and a species of yew (*Taxus*).

The remainder of the middle portions of the county, limited to what was formerly called the Forest, and extending as previously stated to the heads of the creeks, where the country falls in an abrupt slope, partakes of the nature of the district just described, so far as the character of its soil is concerned; but there is a greater proportion of waste ground, less timber, and there have been

lately fewer attempts at improvement. Still there are many admirable locations for farms, and the soil, generally speaking, is susceptible of as high a degree of improvement as any other portion of the county. Here it is the most eligible sites for artificial meadows present themselves, in the rich alluvial bottoms at heads of the creeks.

But the most valuable estates lie in the Necks. The tract of land between Chester river and the N. E. prong of Langford's bay, known as Quaker Neck, is level, with mostly a stiff clay soil, more intermixed with sand on the Chester river side, upon which timothy has been found to set remarkably well, and clover and plaster are used with great advantage. Fine crops of corn and oats are raised upon it, and the addition of lime which may be obtained on the spot, would convert the whole tract into first rate wheat lands. The timber is not abundant, consisting principally of red and white oaks, sweet gum (*Liquidambar Styraciflua*), and cedar.

Broad Neck, situated between the N. E. and N. W. prongs of Langford's Bay, in its upper portion, has a light spongy soil, mostly a sandy loam, though on some spots it assumes the character of a clay-loam. Corn, oats, and rye afford the surest and most abundant returns, but where lime has been applied, heavy crops of wheat have been gathered. On the farm of Mr. Joel Vickers, now in the occupancy of Major Jessup, where ashes and lime have been liberally used, as much as forty-seven bushels of wheat have been produced to the acre.—An instructive lesson to farmers of this section, nay of a large portion of the Eastern Shore of Maryland, of what may be obtained from their lands when properly attended to. In the lower parts of the soil is a stiff clay, which, with the addition of lime, would make excellent wheat lands. It also furnishes good timothy lots, and has a fair proportion of woodland, consisting mostly of white oak and chestnut. The outfields, more especially in the upper part of the neck, as well as what is termed the Forest, or high-lands of the county generally, throw up a growth of cedar.

Poplar Neck forms one estate, the property of Major Hynson, the soil of which has a preponderance of clay, and is sour: it is well wooded, the timber consisting principally of black and white oaks, with an undergrowth of dogwood (*cornus florida*), some cedars, a few pines, and a young growth of sweet gum.

Piney Neck, between Langford's Bay and Gray's Inn creek, has a stiff clay soil, which becomes lighter at the extremity of the neck bordering on Chester river. It has the reputation of having formerly produced good wheat crops, but is now much exhausted, requiring a free application of lime. Wherever this has been done, as on the farm of Mr. John S. Constable, the happiest results have been obtained. The neck is well wooded, the timber consisting of the several kinds of oak, chestnut, hickory, gum, pines, poplar, maple, &c.

Skinner's Neck, lying between two prongs of Gray's Inn creek, is principally covered with pines.

Eastern Neck lies between Gray's Inn creek and the Chesapeake bay. It extends, including the Island, which terminates it, about nine miles, on an average breadth of one and a half: its surface

is gently undulating, with a soil of a light loamy character and slightly ferruginous, well adapted to the cultivation of corn, yielding abundantly of potatoes, and would doubtless be found quite congenial to the growth of the sugar beet. The Island portion of the neck, is principally occupied by marshes that afford tolerable pasturages. The timber consists of oak (white, willow, and box, principally,) sweet gum, chestnut, and a few pines. The locust is found to grow rapidly, and some attention is now paid to encourage and increase its growth. The proximity of the neck to Baltimore, the facility and expedition with which its produce can be brought to a market, together with the natural fertility of its soil, would seem to render it peculiarly eligible for the location of market farms, and the plantation of orchards for the supply of choice fruits to the city. The neck is reputed healthy.

The bay-side, from Swan point to Howell's point, a distance of twenty miles, with an average breadth of three miles, presents a long and narrow zone of country upon which some of the most valuable estates in the county are located. The surface of the country is generally level, excepting near the bay-shore, or along the banks of the creeks. The soil is stiff clay, very sour, and consequently greatly in want of amendment by the application of some alkaline matter, either lime, ashes, or the greensand. The timber cannot be said to be abundant, though there are some valuable tracts of woodland, consisting mainly of the several kinds of oaks, sweet gum, a few pines, dogwood, persimmon, &c.

The northern portion of the county lying on the Sassafras, and forming rocks of inconsiderable extent, between the short creeks that empty into this river, exhibit less uniformity in the character of their soils. These vary from sandy loam, clay, and clayey-loam, in some places highly ferruginous, and on the slopes of the hills often gravelly. Clover sets and thrives well in most places, and the pasturages covered with the white clover, plainly indicating the aptness of the soil to attain, under proper management, a high degree of fertility. The wooded land consists principally of oaks, chestnut and dogwood; whilst the locust and cedar grow readily, in all parts. Such are the prominent features in the physical geography of the county.

In reference to its geological constitution, the northern and middle portions of the county are based upon deposits of the secondary period, referable to what in our country has been termed the ferruginous sand formation, and embracing extensive beds of greensand, containing as characteristic fossils *terrebratula* and *gryphea*, and beds of a micaceous black sand with *belemnites*, *ammonites*, *exogyra*, &c. The superincumbent deposits of clay, sand and gravel, that occasionally present themselves, have very little depth, and belong doubtless to a much more recent epoch, which it is difficult to assign with precision.—The only fossil known to have been found in them, is the grinder of a *mastodon*. They are probably of diluvial origin.

On the banks of the Chester, the southwest portion of the county, including all the necks previously described and the bay-side, the secondary deposits disappear, being replaced by ferruginous clays and sands, which, judging from one or two fossiliferous beds of small extent occur among

them, belong to the tertiary period. These materials are in some places very much intermixed with particles of green sand, washed down from the deposits in place of this article that occur in the upper portions of the county. There is no locality among them offering any special geological interest excepting one at Farley, where a ligniferous clay with nodules of pyrites occurs a little above high-water mark, surmounted by a thick stratum of boulders and gravel composed of coarse and fine-grained sandstone, greenstone, micaceous and argillaceous slates, quartz-rock, and quartz, from several hundred pounds weight down to ordinary sized gravel, the whole covered by a clayey-loamy soil upwards of three feet in depth. In this bed of clay there have been found detached and grouped crystals of *selentic*. Some of the materials referred to in this and the preceding paragraph promise to furnish important agricultural resources to the county.

In my report of the Geological Survey of Maryland during the year 1835, I called the attention of the people of Kent county to the occurrence within their limits, of the greensand, so extensively used in New Jersey as a manure, and of another mineral deposit designated as the micaceous black sand, which from its composition it was supposed would likewise prove beneficial when applied to the soil. Directions were left with those interested, as to the probable best mode of employing them; and although these directions have been attended to only in a few instances, enough has been obtained to satisfy me that my anticipations of their value have not been disappointed. The following are the most satisfactory experiments hitherto made in Kent county, both with the greensand and the micaceous black sand, which latter I shall hereafter designate as the black marl.

At the head of Sassafras a deposit of pure greensand occurs which has been used with complete success on oats and buckwheat; but I am sorry to be obliged to express my regret that the experiment was not carried out with that zeal and attention, which the subject merited, which the intelligence of the proprietor had led me to expect, and which his interests ought to have urged. The received account of it leads me to believe, that about ten loads of ten to twelve bushels were applied to the acre, on part of a field in preparation for corn. The ensuing crop did not appear to be in any degree benefitted by the application. It was succeeded by oats, which were fully twenty per cent. better where the greensand had been used than elsewhere. But a much more satisfactory experiment was made upon a lot of ground prepared for buckwheat. The greensand, to an amount not determined, was applied to a land about eight feet in breadth and fifty in length, and was well intermixed with the soil previous to the seeding of the grain. This spot was visited on the 10th day of July. The buckwheat was then just coming out of the ground, and nothing could be more satisfactory. On the land the growth was at least doubled in size and in quantity, and the extent as well as termination of the marled portion could as readily be traced as might be the walks and beds of a flower-garden. To render the effects of the greensand still more apparent, the experimenter had caused a load of it to be dropped in the centre of the unmarled portion,



which contrasted as strongly with the surrounding parts, where there was but a scanty growth. What the ultimate result of the experiment was has not been learned.

Other less conclusive experiments were made with the mixed greensand, all of which gave promise that even in its impure state, it would prove advantageous. In one instance mixed sand that had been indicated as occurring at the head of Morgan's creek, in the vicinity of Mr. Uri's mills, was applied to a portion of a cornfield most successfully, having proved, to use the gentleman's own expressions "as good as ashes." Mr. George S. Holliday has likewise made trial of a ferruginous sand containing a few green particles, and the result was that no good effects were apparent upon the wheat, whilst the clover seemed to have received some benefit. This gentleman having since discovered a much purer article within his own premises proposes to use it extensively, and as the soil of his farm is generally stiff, there can be no doubt that it will prove serviceable. Mr. Jeremiah Nicols, at the extreme end of Quaker Neck, used small quantities of the mixed sand in alternating rows of corn, the sand having been applied to the hills, and was of opinion in the early stage of the growth that there was a marked difference for the better wherever the sand had been added. Small quantities of the sand, in various states of purity, have been used in garden beds, and as reported, in all cases to have accelerated and improved the vegetation.

To be Continued.

If man would but reflect how much he, above all others of the animal creation, owes to the Creator, the giver of all good, we would have an enlarged security for moral honesty as well as for religious rectitude.

The following little Poem, by Mary Howitt, goes to impress the mind strongly with a sense of our obligation to a Divinity which provides not only to our wants, but administers so largely even to our pleasures.—*Lansingburgh.*

#### THE USE OF FLOWERS.

God might have made the earth bring forth,  
Enough for great and small—  
The oak tree and the cedar tree,  
Without a flower at all.

He might have made enough, enough,  
For every want of ours,—  
For luxury, medicine, and toil,  
And yet have made no flowers.

The ore, within the mountain mine,  
Requireth none to grow,  
Nor does it need the Lotus flowers  
To make the river flow.

The clouds might give abundant rain;  
The mighty dews might fall,  
And herb, that keepeth life in man,  
Might yet have drunk them all.

Then wherefore, wherefore were they made,  
All dyed with rainbow light,  
All fashioned with supremest grace,  
Up springing day and night?

Springing in valleys green and low,  
And in the mountains high,  
And in the silent wilderness,  
Where no man passes by?

Our outward life requires them not,  
Then wherefore had they birth?  
To minister light to man,  
To beautify the earth?

To comfort man—to whisper hope,  
When'er his face is dim,  
For who so careth for the flowers,  
Will care much more for him!

#### THE AMERICAN FARMER.

The proprietors of this paper have a few complete sets of this work on hand, which they will dispose of at the reduced price of \$50 a set.—They are half bound and comprise each 15 volumes. The American Farmer, it will be recollected, was the pioneer in agricultural improvement in this country, being established in 1819, by John S. Skinner, Esq., to whose talents and industry its pages are indebted for, perhaps, the most valuable collection of agricultural matter to be found in any work extant. Those who desire to possess themselves of this valuable work will make early application as the number for sale is very limited.

#### SALE OF EXTRA STOCK.

TO be sold by Public Sale at Carrollton Hall, on Elkridge, the Farm of John MacAvish, Esq., seven miles from Ellicott's Mills, on Tuesday the 29th of May 1838.—viz.

- 10 Milch cows from 3 to 7 years old,
- 4 Steers 2 years old,
- 2 Bull's 1 year old, nearly full Durham.
- 2 Steers 1 year old,
- 3 Heifers 1 year old.

With the exception of a few of the Milch Cows, the whole of the above stock are the get of "Young Malcolm," the finest Improved Short Horn Bull in Maryland—and are from 4 to 7-8 Blood.

Will be sold at the same time, 2 young Boars—one a full bred Russian, Sale to commence at 10 A. M.

Terms Cash, or Notes at six months with approved Security and Interest.  
may 12 JOHN MACKENZIE, Manager.

#### NEW BALTIMORE SEED STORE.

THE Subscriber having located himself in Grant street, near Pratt, three doors in the rear of Dinmore & Kyle's Grocery Store, takes this early method of informing his friends and the public, that he has commenced the GARDEN AND FIELD SEED BUSINESS, and solicits a portion of public patronage. He has on hand and intends keeping, at all times, a constant and general assortment of the very best FIELD AND GARDEN SEEDS, a part of the latter, being of the last year's importation, and all the growth of 1837.

Also GARDEN AND FARMING TOOLS, of various kinds; a few barrels of ITALIAN Spring WHEAT; BADEN CORN, raised, and carefully selected by Col. Mercer—DUTTON; MANDAN; SIOUX; AND EARLY SUGAR CORN; CLOVER; TIMOTHY, ORCHARD, & HERD'S GRASS SEEDS; BUCKWHEAT; OATS; MILLET, WHITE DUTCH CLOVER; LUCERNE; TREFOIL; SAINFOIN, ENGLISH RYE GRASS, &c. &c.

Farmers, Gardeners, Merchants, Captains of Vessels, and others, are invited to give him a call, as they can be supplied not only with Field and Garden Seeds of all kinds, but also with PLOUGHS; HARROWS; STRAW CUTTERS; CORN SHELLERS; WHEAT FANS, WHEAT CRADLES, &c. &c., together with all other kinds of useful implements of Husbandry, manufactured and kept constantly for sale by John T. Durdin & Co. at their Agricultural Store, also in Grant street. Orders for articles in the above line by mail or otherwise, shall be faithfully and punctually executed.

THOMAS DENNY,

Grant street, 3 doors in the rear of Dinmore & Kyle's.

#### GROUND PLASTER OF PARIS,

Of superior quality, in bulk on hand and for sale by JONA. ELLICOTT & SONS,  
may 8 31 south end of Patterson-st.

#### ROBERT SINCLAIR, Jr. & CO.

Light street, near Pratt street Wharf.

OFFER FOR SALE, an extensive assortment of AGRICULTURAL and HORTICULTURAL IMPLEMENTS and SEEDS, comprising all that are required to stock the most extensive plantation. Particular attention is directed towards the manufacturing department, where the most competent workmen are employed and durable materials used.

The assortment of PLOUGHS is large and various, among which are the Double mould board, Sub-soil, Self-sharpening, Improved Davis, &c.

WHEAT FANS—Com. Dutch, Crank Shake, and Watkins' Patent.

CORN SHELLERS—For manual and horse power, warranted to shell 2 a 700 bushels of corn per day.

CORN AND COB CRUSHERS—For breaking the cob in suitable size for feeding stock.

CYLINDRICAL STRAW CUTTERS—of these there are several sizes. The late improvements made have rendered them the most perfect and effective Straw Cutters in the country.

THRASHING MACHINES and Horse Powers.

CULTIVATORS, for cultivating Corn, Tobacco, &c.

DRILL and SOWING MACHINES, for drilling vegetable and grass seeds.

VEGETABLE CUTTERS, for slicing turnips, mangel wurtzel, pumpkins, &c.

HARROWS—Expanding, Com. Square and Diamond shape.

GREEN'S PATENT and common DUTCH STRAW CUTTERS.

Grain Cradles and Grass Sneath, with warranted Scythes attached, Sickles, Scythe Stones, Grain and Hay Rakes, Hay and Manure Forks, with 2 & 6 prongs, Ox Yokes, Grubbing Hoes, Docking Irons, Ames' Spades and Shovels, cast steel Axes, Bramble Hooks, Hay Knives, Box, Pruning and Sheep Shears, Grass Hooks, Pruning Knives, Children's Spades, and various other Garden Tools.

Merchants wishing to purchase Ploughs and Castings to sell again, will find it to their interest to examine our stock, being the largest and most general assortment in this city, and for sale on liberal terms.

GARDEN & FIELD SEEDS—Just received from Europe, and from the Clairmont Seed Gardens near this city, an extensive assortment of Garden and European Field Seeds, warranted fresh and genuine, viz.

French Sugar Beet Seed, Mangle Wortzel, Ruta Baga, superior Beet and Radish Seeds, early and late Cabbage Seed, 30 kinds early and late Peas, bunch and pole Beans, Hybrid and other Turnip Seeds, Cauliflower and Broccoli; Scotch Kale, Parsnip, Carrot, Cucumber, Lettuce, Onion, Summer and winter Squash, Melons, Leek, Celery, Okra, Salsify Cress, superior assortment of Flower Seeds, Herb Seeds, &c. &c.

FIELD SEEDS—English and Italian Ray Grass, Trefoil, Burnet, St. Poin, Lucerne, white and red Clover, green and blue Grass, early Potatoes, Gama Grass Roots, Baden and Mercer Corn, Italian and Tuscany Wheat, Timothy, Herds and Orchard Grass, Millet, &c.

TREES AND PLANTS supplied at the shortest notice from the Clairmont Nurseries, near this city.

Wanted, prime lots Seed, Grain and Grass Seeds.

#### DAHLIA ROOTS.

The subscriber can furnish any quantity of DAHLIA ROOTS to the number of one thousand, recommended to be a choice variety, all of the double kind, and from the well known nursery of Samuel Reeves, Esq'r. near Salem, New Jersey. He can also furnish from the same nursery very superior APPLE TREES for spring planting, if orders are given in soon for them. Peach Trees cannot be furnished from the said nursery before next fall.

J. S. EASTMAN.

Printing, executed at the Farmer & Gardener, at short notice.

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## BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel	1 00	—
CATTLE, on the hoof,.....	100lb	9 00	10 00
CORN, yellow,.....	bushel	70	71
"    white,.....	"	69	71
COTTON, Virginia,.....	pound	9	11
North Carolina,.....	"	10	11
Upland,.....	"	9 1/2	11
Louisiana — Alabama,.....	"	11	12
FEATHERS,.....	pound	48	50
FLAXSEED,.....	bushel	1 25	dull
FLORIDA MEAL—Best wh. wh't fam.	barrel	10 00	10 50
Do. do. baker's,.....	"	7 75	7 87
Superior, at from stores	"	7 25	—
"    wagon price,.....	"	7 75	—
City Mills, super,.....	"	8 00	—
"    extra,.....	"	7 75	—
Susquehanna,.....	"	4 50	—
Rye,.....	"	18 00	—
Kiln-dried Meal, in hhds.	hhd.	3 50	—
do. in bbls,.....	bbl.	8 00	8 50
GRASS SEEDS, whole, red Clover,	bushel	2 50	3 00
Kentucky blue,.....	"	3 00	3 50
Timothy (heads of the north)	"	2 50	3 00
Orchard,.....	"	3 00	—
Tall meadow Oat,.....	"	1 00	1 25
Herds, or red top,.....	"	12 00	15 00
HAY, in bulk,.....	ton	8	7
HEMP, country, dew rotted,.....	pound	7	5
"    water rotted,.....	"	7 00	7 50
HOGS, on the hoof,.....	100lb	—	—
Slaughtered,.....	"	9	—
HIDES—first sort,.....	pound	7	—
second,.....	"	5	—
refuse,.....	"	39	55
LIME,.....	bushel	3 50	4 00
MUSTARD SEED, Domestic, —; blk.	"	39	33
ONIONS,.....	bushel	1 00	1 12
PEAS, red eye,.....	"	1 00	—
Black eye,.....	"	1 00	—
Lady,.....	"	3 50	—
PEACHES, in the stone, cargo,	ton	1 50	—
Ground,.....	barrel	3	4
PANCA GRISSA BEAN,.....	bushel	85	98
RAGS,.....	pound	3	4
RYE,.....	bushel	3 00	3 50
Susquehanna,.....	"	4 00	6 00
Tobacco, crop, common,.....	100lb	8 00	10 00
"    brown and red,.....	"	10 00	20 00
"    fine red,.....	"	8 00	10 00
"    wrappery, suitable	"	8 00	10 00
"    for cigars,.....	"	12 00	16 00
"    yellow and red,.....	"	—	—
"    good yellow,.....	"	—	—
"    fine yellow,.....	"	—	—
Seconds, as in quality,.....	"	4 50	6 00
ground leaf,.....	"	5 00	8 00
Virginia,.....	"	—	—
Rappahannock,.....	"	—	—
Kentucky,.....	"	—	—
WHEAT, white,.....	bushel	1 70	1 75
Red, best,.....	"	—	—
Maryland inferior,.....	"	—	—
WHEAT, 1st pf. in bbls,.....	gallon	33	34
"    in hhds,.....	"	31	—
"    wagon price,.....	"	30	30
WAGON FASSETS, to Pittsburgh,	100lb	1 51	—
To Wheeling,.....	"	1 75	—
WOOL, Prime & Saxon Fleeces,.....	pound	40 to 50	20 22
Full Merino,.....	"	35 40	18 20
Three fourths Merino,.....	"	30 35	18 20
One half do,.....	"	25 30	18 20
Common & one fourth Meri.	"	25 30	18 20
Fulled,.....	"	28 30	18 20

## MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD F. ROBERTS.

## BALTIMORE PROVISION MARKET.

	PER	FROM	TO
APPLES,.....	barrel	12 1/2	13
BACON, hams, new, Balt. cured....	pound	11	—
Shoulders,..... do.....	"	11	—
Middlings,..... do.....	"	8 1/2	9 1/2
Assorted, country,.....	"	20	25
BUTTER, printed, in lbs. & half lbs.	"	—	—
Roll,.....	"	—	—
CIDER,.....	barrel	5 00	6 00
CALVES, three to six weeks old....	each	30 00	40 00
COWS, new milch,.....	"	9 00	12 00
Dry,.....	"	1 62	—
CORN MEAL, for family use,.....	100lb	1 50	1 62
CHOP RYE,.....	dozen	12 1/2	—
EGGS,.....	barrel	8 75	—
FISH, Shad, No. 1, Susquehanna,	"	8 25	—
No. 2,.....	"	3 75	—
Herrings, salted, No. 1,.....	"	10 00	12 00
Mackerel, No. 1, ——— No. 2	"	—	—
No. 3,.....	"	3 00	3 25
Cod, salted,.....	cwt	9	10
LARD,.....	pound	—	—

## BANK NOTE TABLE.

Corrected for the Farmer &amp; Gardener, by Samuel Winchester, Lottery &amp; Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,.....	VIRGINIA.
Branch at Baltimore,.....	do	Farmers Bank of Virgi.
Other Branches,.....	do	Bank of Virginia,.....
MARYLAND.		Branch at Fredericksburg.
Banks in Baltimore,.....	par	Petersburg,.....
Hagerstown,.....	do	Norfolk,.....
Frederick,.....	do	Winchester,.....
Westminster,.....	do	Lynchburg,.....
Farmers' Bank of Mary'd, do	do	Danville,.....
Do. payable at Easton,.....	do	Bank of Valley, Winch.
Salisbury,..... 1 per ct. dis.	do	Branch at Romney, . . .
Cumberland,..... par	do	Do. Charlestown, par
Millington,..... do	do	Do. Leesburg,.....
DISTRICT.		Wheeling Banks, . . .
Washington,.....	do	Ohio Banks, generally \$1/4
Georgetown,.....	do	New Jersey Banks gen. . .
Alexandria,.....	do	New York City, . . . par
PENNSYLVANIA.		New York State, . . . do
Philadelphia,..... par	do	Massachusetts, . . . 3/4
Chambersburg,.....	do	Connecticut, . . . 3/4
Gettysburg,.....	do	New Hampshire, . . . 3/4
Pittsburg,.....	do	Maine, . . . 3/4
York,.....	do	Rhode Island, . . . 3/4
Other Pennsylvania Bks. . .	do	North Carolina, . . . 5
Delaware (under \$5)....	do	South Carolina, . . . 6 1/2
Do. (over \$5).....	do	Georgia, . . . 8
Michigan Banks,.....	do	New Orleans, . . . 8 1/2
Canadian do,.....	do	

## TO THE PUBLIC.

Try the New Agricultural Establishment in Grant-street, next door to Dinsmore and Kyle.

Every article warranted to be first rate. The subscribers, grateful for past favors, take this early opportunity of returning their thanks to their customers and the public in general, and beg leave to inform them that they are now provided with a very extensive stock of newly manufactured AGRICULTURAL IMPLEMENTS, suitable to meet the call of Farmers, Gardeners, Merchants, Captains of vessels, and others, viz: 1000 Ploughs, assorted sizes, from \$4 to \$15 each, comprising of the old common Bar Shear, Winand's Self Sharpener; Woods & Freeborn's patent, all sizes, "Davis," "Sinclair & Moore's" improved Hill Side Ploughs, highly esteemed for turning the furrow down hill, with wrought or cast shears; Wheat Fans, of various sizes and patterns, from \$15 to \$50 each, warranted to separate the garlic from the wheat; Corn Shellers, from \$12 to \$20; Cutting Boxes, from \$7 to \$50 each; Corn and Tobacco Cultivators, large and small; Expanding do., Wheat Cradles, warranted to have fingers of the natural growth, and Grass Seythes, &c. &c.; Castings, of all descriptions and patterns, by the lb. or ton, to suit customers, allowing a liberal discount to merchants buying to sell again—fals which will be furnished on the most pleasing terms. I do every article warranted to be of the best quality, in

proportion to the cost price. All orders by mail or otherwise shall be duly attended to with the greatest despatch.

We would particularly call the attention of Country Merchants and others, wishing to purchase agricultural implements to sell again, to the fact, that we will furnish them with articles on better terms than they can be supplied at any other establishment in the city. Our assortment is complete and as varied as that of the most extensive concern in Baltimore.

We have also connected in its operations with the above branch of business a complete assortment of FIELD AND GARDEN SEEDS, kept by Thomas Denny—Also Garden and Farm Tools, of various sorts and of the choicest collection, which will enable our customers to have filled entire all orders in the Agricultural and Seed Departments. mh 26 JOHN T. DURDING & Co.

## SUPERB DOUBLE DAHLIAS.

## ALSO, GARDEN AND FLOWER SEEDS.

The subscriber offers for sale at his establishment the best collection of Double DAHLIAS offered to the public, and will warrant every root true to name and colour, but they are too well known to need any comment in their favor, as most all amateurs in the vicinity have seen them in bloom to their great satisfaction, so those who wish to have roots that are genuine, apply at the right place, and lower than any other in the city as to quality.

Besides he offers a general and good collection of Garden and Flower SEEDS, fresh imported, that cannot be raised to perfection in this country; he has selected from Europe, and will dispose of them on reasonable terms, with a general collection of Greenhouse, Herbaceous and hardy plants, also Bulbous Roots. Catalogues can be had at his establishment, corner of Pine and Lexington street, Baltimore, by

JOHN FEAST,

Florist &amp; Seedman.

ap 24 3t

## FARMERS' REPOSITORY OF AGRICULTURAL IMPLEMENTS AND EASTMAN'S CYLINDRICAL STRAW CUTTERS IMPROVED.

THE Subscriber informs the public that he has secured by letters patent his late and very important improvements on his Cylindrical Straw Cutter, by which improvements they are made more durable and easier kept in order. All the machinery being secured to an iron frame the shrinkage, wear and decay of wood is avoided. The feeding part of his improved machine is upon an entire different principle from the former machine; far more durable, requiring neither skill or care to keep it in order. These machines are so constructed as to make the freight on them less than half what it cost to ship the former or wood machines, an important desideratum to purchasers living at a distance; and I now offer it to the public upon the credit of my establishment as the most perfect machine in existence for the same purpose. They are also adapted to cutting rags for paper making, and for cutting tobacco as manufactured by Tobaccoists, &c.

I also keep these machines on hand made as heretofore with my new feeding machinery attached to them; and also a general assortment of Agricultural Implements, as usual. Elliott's Horizontal Wheat Fans, and Fox & Bolland's Threshing Machines are both superior articles.

My stock of Ploughs on hand are not equalled in this city either for quality, quantity, or variety. I have a large assortment of Plough Castings at retail or by the ton, and having an Iron Foundry attached to my establishment can furnish any kind of Plough or Machine Castings on reasonable terms and at a short notice.

All repairs done with punctuality and neatness. On hand, a few Patent Lime Spreaders, Horse Powers, &c. &c.

Also just received, a fresh supply of Landreth's superior Garden Seeds. In store, superior Timothy and Orchard Grass Seed and Seed Oats. All implements in the agricultural line will be furnished by the subscriber, as good and on as reasonable terms as can be had in this city, with a liberal deduction to wholesale purchasers. Likewise will receive orders for Fruit Trees from Mr. S. Reeves' Nursery, New Jersey.

JONATHAN S. EASTMAN,

Pratt street, Baltimore,

feb 20

Between Charles &amp; Hanover sts

## A NEW-FOUNDLAND SLUT.

For sale, a large size New Foundland Slut, of large size and very handsome. Her color is black. She is thoroughly broken to the gun, and in pup to a bulldog; price \$20. Enquire of the editor of the Farmer and Gardener, Baltimore, Md.

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